ACCEPTANCE OF COMPLETED WORK

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General

Army Corps of Engineers Section 404/Section 10 Permits (U.S.)

U.S. Army Corps of Engineers Section 404/Section 10 Permits include conditions. These conditions will be listed on the permit. These conditions have the force of law. They must be understood and complied with prior to the final acceptance of the completed work. The conditions are currently being included in the letting package, and also must be posted at the construction site at all times. It is the project engineer's responsibility to be familiar with these conditions, and comply with them. If there are conditions that you cannot feasibly comply with, contact the Division of Operations Support for assistance. Do not ignore any conditions.

See the Army Corps of Engineers Section 404/Section 10 Permits (U.S.) Section in the Laws and Regulations Section.

Asbestos

Construction projects may involve exposure to asbestos with either building or bridge renovation/demolition or burning. Asbestos material has been found in approximately 20% of all buildings. It is most likely to occur in buildings built between 1950 and 1975. It was used for surfacing materials, thermal system insulation and other miscellaneous purposes. The presence of asbestos in INDOT bridges occurs at a much lower percentage. When it is present, it is most commonly found on utilities, gunnite, various joints, rail paint and bridge seats.

Prior to the demolition or renovation of buildings or bridges, INDOT will undertake an asbestos inspection of the facility. The report of this inspection will be included in the contract. No demolition or renovation of either buildings or bridges can occur until regulated asbestos containing material has been properly removed and disposed. Make sure that the asbestos containing material has been properly removed and disposed of prior to the acceptance of the completed work.

Bridge Asbestos Exclusion

To simplify future bridge projects, contractors for all bridge construction and rehabilitation projects should provide the project engineer a document indicating the following:

> *I hereby certify that to the best of my knowledge no asbestos-containing material was used as a building material during this project.*

Having this statement on file exempts all new construction/renovation projects from future asbestos inspection and abatement. **Please send a copy of this statement to the Environmental Services Section, Division of Pre-Engineering and Environment.**

See the Asbestos Regulations Section for detailed information.

Construction in a Floodway

Projects involving construction, excavation, or placement of fill within the floodway of any river or stream, requires the written approval of the Indiana Department of Natural Resources (IDNR) prior to initiating the activity. Except for the construction of dams, dikes, or levees, work in floodways along rivers and streams where the drainage area is less than 1 square mile, requires no Construction in a Floodway Permit.

A floodway is defined as the channel of a river or stream and those portions of the flood plain adjoining the channel, which are reasonably required to carry and discharge the flood water or flood flow of any river or stream. Typically this is the 100 year floodway. Generally, any activity which disturbs soil or sediments within the floodway, and does not meet the requirements of the bridge exemption, requires a permit from IDNR.

This permit often contains conditions. These conditions carry the force of law, and must be adhered to. They must be understood and complied with prior to the final acceptance of the completed work. If there are conditions that you cannot feasibly comply with, contact the Division of Operations Support for assistance. Do not ignore any conditions. **Remember, if you have one permit for an activity, you are not exempted from obtaining all required permits for the same work. Make sure you have obtained all other required permits.**

See the Construction in a Floodway Laws and Regulations Section for more detailed information.

Dewatering Well Installation

Dewatering well installation, if temporary, requires a report to be sent to IDNR, Division of Water. If well is to be permanent then a registration of the well will be required. The Water Rights: Emergency Regulation Act provides protection for domestic well owners against the impact of high capacity ground-water pumpage if it substantially lowers water levels, resulting in the failure of a domestic well. INDOT or its contractors may be liable under this statute if dewatering operations associated with construction result in failure of neighboring domestic well.

Who Must Register

Indiana Code 14-25-7-15 requires every person who has a significant water withdrawal facility to register that facility with the Natural Resources Commission. A water withdrawal facility can be considered to include any and all well, surface water intakes, pumping apparatus or other installation, which supply water to a common collection and/or distribution point. As defined by the statute a significant water withdrawal facility means the water withdrawal facilities of a person that, in the aggregate from all sources and by all methods, has the capability of withdrawing more than one-hundred thousand (100,000) gallons of ground water, surface water, or ground and surface water combined in one (1) day; however, this does not include

water withdrawal facilities located in or on an off stream impoundment that is principally supplied by a significant water withdrawal facility.

See the Dewatering Well Installation Section for detailed information

Ditch Reconstruction

Any person proposing to undertake activities affecting ditches or drains within ½ mile of a public fresh water lake, where the bottom elevation of the ditch would be lower than the legal or average water level of the lake must obtain a Ditch Permit from the Indiana Department of Natural Resources. A *public freshwater lake* is a naturally occurring body of water for which access is provided by the property owner to the general public, **excluding** Lake Michigan, lakes within the city of Hammond, borrow pits, sinkholes, or privately owned water bodies associated with surface coal mining. Most public freshwater lakes are located in the northern part of the state. Prior to the acceptance of completed work ensure that all of the requirements of this permit have been met.

See the Ditch Reconstruction Section of the Laws and Regulations Section for detailed information.

Lake Preservation Act (Permit)

The Lake Preservation Act mandates that any person proposing to perform an activity at or lake ward of the legal shoreline or average normal water level (mark) of a public freshwater lake must obtain written approval of the Indiana Department of Natural Resources prior to initiating the activity. A *public freshwater lake* is a naturally occurring body of water for which access is provided by the property owner to the general public, **excluding** Lake Michigan, lakes within the city of Hammond, borrow pits, sinkholes, or privately owned water bodies associated with surface coal mining. Most public freshwater lakes are located in the northern part of the state. Prior to the acceptance of completed work ensure that all of the requirements of this permit have been met.

See the Lake Preservation Act Section of the Laws and Regulations Section for detailed information.

Lead Paint

Lead has been an additive to paints, because it helped them to dry faster and it made a coating that stood up to wear and tear and weather changes. Of the eight RCRA metals, lead and chromium are the two that were most commonly used in bridge paints such as AASHTO M72 and M229. Barium compounds have been used as extender pigments for coatings, though not in the AASHTO materials referenced, and in some non-lead alternative formulations. Cadmium compounds have been used as a coloring pigment.

Residue from blasting bridges must be tested for lead to determine if it is a solid or hazardous waste. **Do not mix samples from different bridges.** Sandblasting residue at a minimum is a solid waste and requires solid waste certification for transportation and disposal. The TCLP test method is used to measure the leachable content of the waste. The results of a

laboratory test are only as good as the samples that are submitted. US EPA test procedure requires that at least four samples be randomly taken and analyzed. IDEM requires that sampling be performed at uniform representative sites on the bridge and that the testing procedure uses the TCLP analytical procedure. The testing method depends on the landfill identified as the potential disposal site. The landfill will require certain testing procedures be followed. When 75% of the blasting job is done, you can test the debris to determine if it is a solid or hazardous waste. While obtaining four samples for analyses are required, it is not necessary to analyze all four samples. Analysis of one sample is enough to classify the waste as hazardous. A minimum of four samples is only needed to classify a waste as non-hazardous.

Containment of sandblasting material is required at a minimum of class 3A for zinc based and 2A for lead based paint (Steel Structures Painting Council Lead Paint Removal). Failure to contain residue is a violation.

The presence of lead requires that site storage requirements for hazardous waste be followed whether or not the waste is found to be hazardous. The lead-containing debris must be stored in a manner that will not allow entry of any hazardous material into the environment. The storage site must be secured. Security includes protection of entry of hazardous material into the environment and security of the waste from vandalism. Security begins with the choice of a suitable location.

The waste must be stored in containers that are capable of being securely closed. Tops must be kept on the containers so that rain cannot enter nor can the material blow out. Drums cannot be stored more that two high or two wide. Each container must have labels identifying the contents and dates of accumulation. The labels must be easily visible. Onsite transportation of hazardous waste can be performed by the generator. However a licensed hazardous waste transporter must perform offsite movement of hazardous waste. Onsite transport is limited to movement of the waste from the work site to the storage area.

RCRA regulates the amount of time a hazardous waste can be accumulated on site. A large quantity generator can accumulate waste for no more than 90 days. A 30-day extension can be obtained from the IDEM if problems occur. Failure to meet this time limit will result in the site being classified as an unlicensed hazardous waste storage facility, and heavy fines can result. The accumulation time starts when debris is first placed in the container, not from the time it is tested and found to be a hazardous waste.

Restricted waste requires notification and certification. Restricted waste is defined as waste restricted from land disposal, a hazardous waste. You must notify IDEM of your activities. A hazardous waste manifest must accompany each load of hazardous waste.

When entering areas where paint has been disturbed proceed with caution and follow all applicable requirements. Lead can be inhaled and absorbed through the skin. Bridge waste having 5 parts per million or more lead is a hazardous waste. A hazardous waste manifest must be signed by the generator and accompany each load of hazardous waste from cradle to grave. Care must be taken to avoid exceeding storage limits for waste.

INDOT has obtained a statewide Solid Waste Certification for paint residue that is solid waste. Individual certification for every bridge's solid waste is no longer required. Use the statewide Solid Waste Certification. A copy of the certification is provided in the Lead Section. Prior to the acceptance of completed work ensure that all of the appropriate regulations concerning lead paint have been met.

See the Lead Paint Section of the Laws and Regulations Section for further information.

Navigable Waterway Permit

A Navigable Waterway permit is required from IDNR when working below the ordinary high water mark within the floodplain of a navigable waterway. This includes any activity, which disturbs sediments below the high water mark, including construction, placement of fill, excavation of material, or withdrawal of water from a navigable waterway. A list of navigable waterways is included in the Laws and Regulations Section under Navigable Waterway Permit. Prior to the acceptance of completed work ensure that all of the requirements of this permit have been met.

An IDNR Construction in a Floodway Permit can also serve as a Navigable Waterway Permit. However, exemption from the Construction in a Floodway Permit does not exempt you from obtaining a Navigable Waterway Permit.

See the Navigable Waterway Permit Section of the Laws and Regulations Section for further information.

Rule 5 - Erosion Control

A soil erosion control plan must be approved by the Soil and Water Conservation District (SWCD) in the county where the project is taking place. All erosion control measures found in the erosion control plan must be properly installed at the site. The IDEM Office of Water Management's Permit Section must be notified upon completion of the construction project.

See the Rule 5-Erosion Control Section of the Laws and Regulations Section for further information.

Section 401 Water Quality Certification

All Section 401 Water Quality Certifications will include conditions. These conditions will be listed on the Certification. These conditions have the force of law. They must be understood and complied with. They are currently being included in the letting package, and also must be posted at the construction site at all times. It is the project engineer's responsibility to be familiar with these conditions, and comply with them. If there are conditions that you cannot feasibly comply with, contact the Division of Operations Support for assistance. Do not ignore any conditions. Prior to the acceptance of completed work ensure that all of the requirements of this permit have been met.

See the Section 401 Water Quality Certification Section of the Laws and Regulations Section for further information.

Sole Source Aquifer

A sole source aquifer is an areas only source of drinking water. In Indiana, the sole source aquifer of concern is located mainly in St. Joseph and Elkhart counties. A confined aquifer is one where a protecting clay layer severely retards surface water from migrating into and contaminating the ground water. An unconfined aquifer is open to contamination from the infiltration of surface water. In St. Joseph and Elkhart counties, most of the aquifer is unconfined and subject to contamination from a variety of activities. Contamination from roadway runoff is a constant threat to the St. Joseph aquifer. Therefore, it is important that any

work by contractors be exceptional so to minimize the threat of contamination in the area of the St. Joseph aquifer. If their work could in any way contribute to pollution of the ground water do not determine that the work has been done according to plans and specifications.

A Memorandum between the Federal Highway Administration (FHWA), Region 5 and the U.S. Environmental Protection Agency (EPA), Region 5 states that FHWA agrees not to commit Federal financial assistance to any project which EPA determines may contaminate a sole source aquifer through its recharge zone so as to create a significant hazard to public health. The requirements of this agreement apply to any Federal Aid highway project determined to be wholly or in part within a sole source aquifer designated area and to which one or more of the following criteria apply:

(1) Construction of additional through-traffic lanes or interchanges, on existing roadways.
(2) Construction of a two or more lane highway on new alignment.
(3) Construction of rest area or scenic overlooks with on-site sewerage disposal facilities.
(4) Any project involving a new or existing well within a designated sole source aquifer area.
(5) Any other project that FHWA, in consultation with EPA, believes may have a potential to affect the designated aquifer through its recharge zone so as to create a significant hazard to public health.

Prior to the acceptance of completed work ensure that all of the requirements of this permit have been met.

See the Sole Source Aquifer Section of the Laws and Regulations Section for further information.

Solid Waste Disposal

Solid Waste means any garbage, refuse, sludge from a waste treatment plant, a water supply treatment plant, or other discarded material, including solid waste liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations or from community activities. Construction/demolition landfills may accept bricks, concrete, stone, glass, wallboard, lumber, roofing materials, and other items which are affixed to the structure being constructed or demolished, including plumbing fixtures, wiring, and non-asbestos insulation. Prior to the acceptance of the completed work ensure that all of the requirements of the solid waste disposal regulations have been met.

See the Solid Waste Disposal Section of the Laws and Regulations Section for further information.

Spill Response

Hazardous material releases, oil spills, fish/animal kills and radiological incidents must be reported to Office of Emergency Response, IDEM **(888) 233-7745.** This should occur as soon as action has been taken to either contain/control the extent of the release, or protect persons, animals or fish from harm or further harm. Appropriate response actions for spills occurring on project sites, in order:

1. Identify the spilled material from a safe distance,
2. Contain the spilled material or block/restrict its flow using absorbent booms/ pillows, dirt, sand or by other available means,
3. Cordon off the area of the spill,
4. Deny entry to the cordoned off area to all but response personnel, and
5. Contact OER/IDEM then Operations Support.

See the Spill Response Section of the Laws and Regulations Section for further information.

Underground Storage Tanks/Leaking Underground Storage Tanks

When a UST/LUST is removed from an INDOT facility or right-of-way, the tank removal contractor is generally required to submit the UST System Closure Report to IDEM. For every Closure report submitted, IDEM completes a UST System Closure Report Review Checklist to determine if the contents of the report meet the requirements of the IDEM UST Branch Guidance Manual. A copy of the UST System Closure Report Review Checklist is sent to the contractor, and to the owner/operator. This checklist will identify any deficiencies in the report. After receiving of the checklist, the contractor has 30 days to submit the required additional information to IDEM. IDEM is allowed up to six months to review the report for completeness. Tank removal/site investigation contracts should not be considered complete or acceptable until a UST System Closure Report Checklist which shows **no** inadequacies has been received from IDEM.

See Underground Storage Tanks/Leaking Underground Storage Tank Section in the Laws and Regulations Section for further information.

Water Well Abandonment

In Indiana, it is not uncommon to see an older farmstead or other residence with a hand pump or a dug well covered over with rotting boards. These types of situations are a threat to human safety as well as potential sources of ground water contamination. The water well drilling law requires that these abandoned wells must be sealed with either a threaded or welded cap over the casing or by filling the well casing with impermeable material. The procedure for well abandonment is very specific and requires a certified well driller. In addition, the IDNR, Division of Water, should be notified in writing of abandonment within thirty days after plugging is completed.

According to Indiana code, "*A well which has not been used for more than three (3) months without being permanently abandoned must be sealed at or above the ground surface by a welded, threaded or mechanically attached watertight cap. The well shall be maintained so that the well does not become a source or channel of ground water contamination*."

Prior to the acceptance of completed work ensure that all of the requirements of the water well abandonment regulations have been met.

See the Water Well Abandonment Section of the Laws and Regulations Section for further information.